

APPEAL BRIEF UNDER 37 C.F.R. § 41.37

TABLE OF CONTENTS

	<u>Page</u>
<u>1. REAL PARTY IN INTEREST</u>	2
<u>2. RELATED APPEALS AND INTERFERENCES</u>	3
<u>3. STATUS OF THE CLAIMS</u>	4
<u>4. STATUS OF AMENDMENTS</u>	5
<u>5. SUMMARY OF CLAIMED SUBJECT MATTER</u>	6
<u>6. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL</u>	9
<u>7. ARGUMENT</u>	10
<u>8. CLAIMS APPENDIX</u>	19
<u>9. EVIDENCE APPENDIX</u>	23
<u>10. RELATED PROCEEDINGS APPENDIX</u>	24

S/N 10/728,572

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appellant: Ian Zenoni

Examiner: John Schnurr

Serial No.: 10/728,572

Group Art Unit: 2421

Filed: December 5, 2003

Docket No.: 2050.100US1

Customer No.: 44367

Confirmation No.: 8936

Title: Application streamer

APPEAL BRIEF UNDER 37 CFR § 41.37

Mail Stop Appeal Brief- Patents

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

The Appeal Brief is presented in response to the Notice of Panel Decision from Pre-Appeal Brief Review mailed on February 25, 2010 and further in support of the Notice of Appeal to the Board of Patent Appeals and Interferences, filed on January 11, 2010, from the Final Rejection of claims 1-17 of the above-identified application, as set forth in the Final Office Action (*Office Action*), having an electronic notification date of September 10, 2009.

The Commissioner of Patents and Trademarks is hereby authorized to charge Deposit Account No. 19-0743 in the amount of \$540.00 which represents the requisite fee set forth in 37 C.F.R. § 41.20(b)(2). The Appellant respectfully requests consideration and reversal of the Examiner's rejections of the pending claims.

1. REAL PARTY IN INTEREST

The real party in interest of the above-captioned patent application is the assignee, Intellocity USA, Inc. as indicated by Assignment Documents filed with the USPTO on October 12, 2004 and recorded on Reel 015241 at Frame 0520.

2. RELATED APPEALS AND INTERFERENCES

There are no other appeals or interferences known to Appellant that will have a bearing on the Board's decision in the present appeal.

3. STATUS OF THE CLAIMS

The present application was filed on December 5, 2003, with claims 1-10. In response to a Non-Final Office Action filed on May 21, 2008, Appellant added claims 11-16. In response to a Final Office Action filed on May 21, 2008, Appellant added claim 17. A Final Office Action (*Office Action*) was electronically dated and sent on September 10, 2009. Claims 1-17 stand twice rejected, remain pending, and are the subject of the present Appeal.

4. STATUS OF AMENDMENTS

No amendments have been entered subsequent to a response to the *Office Action* dated September 10, 2009.

5. SUMMARY OF CLAIMED SUBJECT MATTER

INDEPENDENT CLAIM 1

Aspects of the present inventive subject matter of independent claim 1 include, but are not limited to, a method of managing the transmission of interactive information over a satellite broadcast system in a fashion that is compatible with a user's set-top box such that the user can view the interactive content.¹

1. A method (*See generally, Figs. 2 and 3*) for sending interactive textual and graphical data from a content provider to a set-top box through a broadcast system (*Paragraph [0019], lines 2-6 and paragraph [0020], lines 1-3; Fig. 1, elements 100, 104, and 130*), said method comprising:

receiving said textual data and said graphical data from said content provider in a server that is located in an uplink center (*Paragraph [0020], lines 1-3; paragraph [0025], lines 1-6; and Fig. 3, element 302*);

retrieving said textual and said graphical data from said server into an application streamer coupled to said server (*Paragraph [0024], lines 2-4 and Fig. 2, element 202*);

converting said textual data and said graphical data into interactive data in said application streamer, the interactive data compatible with the set-top box (*Paragraph [0024], lines 6-9; paragraph [0025], lines 22-32; Fig. 2, element 204; and Fig. 3, element 306*);

using said application streamer to create a file directory structure based on a priority for each file in the file directory structure, the priority for each file determined using information about each file present in said textual data and said file directory structure comprising at least one data file and at least one graphical data file formatted by the application streamer to be compatible with the set-top box (*Paragraph [0027], lines 1-17 and Fig. 3, element 308*);

using said application streamer to create a node tree on a broadcast streamer by mirroring said file directory structure such that each file in said file directory structure becomes a node

¹ Appellant notes that all reference elements, paragraph numbers, and line numbers are made in reference to Appellant's U.S. Published Patent Application No. 2004/0221319.

with a corresponding priority in said node tree on said broadcast streamer (*Paragraph [0028], lines 5-25 and Fig. 3, element 310*);
allocating bandwidth and transmission frequency to each node of said node tree based on the corresponding priority of each said node (*Paragraph [0030], lines 1-5 and 19-25; Fig. 3, element 312*); and
using said broadcast streamer to multiplex said nodes of said node tree with a regular broadcast stream resulting in an interactive data stream (*Paragraph [0024], lines 16-19 and 19-25; Fig. 2, elements 206 and 208*).

INDEPENDENT CLAIM 9

Aspects of the present inventive subject matter of independent claim 9 include, but are not limited to, a system to manage the transmission of interactive information over a satellite broadcast system in a fashion that is compatible with a user's set-top box such that the user can view the interactive content.

9. A system (*See generally, Fig. 1*) for sending interactive textual and graphical data from a content provider to a set-top box through a broadcast system (*Paragraph [0019], lines 2-6 and paragraph [0020], lines 1-3; Fig. 1, elements 100, 104, and 130*), said system comprising:
- a server (*Paragraph [0020], lines 31-35 and Fig. 1, element 111*), located in an uplink center (*Fig. 1, element 104*), that receives said textual data and said graphical data from said content provider (*Paragraph [0020], lines 1-3*);
 - an application streamer (*Paragraph [0020], lines 39-31 and Fig. 1, element 109*), that is coupled to said server, that retrieves said textual data and said graphical data from said server (*Paragraph [0020], lines 21-23*), and that converts said textual data and said graphical data into interactive data compatible with the set-top box (*Paragraph [0021], lines 4-8 and paragraph [0025], lines 22-31*);
 - a file directory structure (*See generally, Fig. 4*) that is created by said application streamer (*Paragraph [0079], lines 1-2*) based on a priority for each file in the file directory structure (*Paragraph [0029], lines 1-3*), the priority for each file determined using

information about each file present in said textual data and said file directory structure comprising at least one data file and at least one graphical data file formatted by the application streamer to be compatible with the set-top box (*Paragraph [0079], lines 4-9 and 16-21*);

a node tree that is created by said application streamer on a broadcast streamer (*Paragraph [0028], lines 20-22*) by mirroring said file directory structure such that each file in said file directory structure becomes a node with a corresponding priority in said node tree on said broadcast streamer (*Paragraph [0028], lines 20-22*);

bandwidth allocation software that calculates a bandwidth allocation for each node of said node tree based on the corresponding priority of each said node (*Paragraph [0029], lines 8-9 and paragraph [0030], lines 1-5*); and

a multiplexer located on said broadcast streamer that multiplexes said nodes of said node tree with a regular broadcast stream resulting in an interactive data stream (*Paragraph [0022], lines 11-21, paragraph [0024], lines 16-19, and paragraph [0028], lines 30-33*).

This summary does not provide an exhaustive or exclusive view of the present subject matter, and Appellant refers to each of the appended claims and its legal equivalents for a complete statement of the inventive subject matter.

6. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

On page 2, paragraph 3 of the *Office Action*, the Examiner rejected claims 1-6, 9-14, and 17 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Published Patent Application No. 2004/0049790 to Russ et al. (*Russ*), in view of U.S. Published Patent Application No. 2002/0199190 to *Su*, further in view of U.S. Published Patent Application No. 2001/0000194 to *Sequeira*.

On page 5, paragraph 5 of the *Office Action*, the Examiner rejected claims 7, 8, 15, and 16 under 35 U.S.C. § 103(a) as being unpatentable over *Russ* in view of *Su* in view of *Sequeira*, as applied to claim 6 above, and further in view of U.S. Patent No. 6,618,353 to Standridge et al. (*Standridge*).

7. ARGUMENT

A) The Applicable Law under 35 U.S.C. §103(a)

The Examiner has the burden under 35 U.S.C. § 103 to establish a *prima facie* case of obviousness.² As discussed in *KSR International Co. v. Teleflex Inc. et al.*³, the determination of obviousness under 35 U.S.C. § 103 is a legal conclusion based on factual evidence.⁴ The legal conclusion, that a claim is obvious within § 103(a), depends on at least four underlying factual issues set forth in *Graham*⁵: (1) the scope and content of the prior art; (2) differences between the prior art and the claims at issue; (3) the level of ordinary skill in the pertinent art; and (4) evaluation of any relevant secondary considerations.

Therefore, the test for obviousness under §103 must take into consideration the invention as a whole; that is, one must consider the particular problem solved by the combination of elements that define the invention.⁶ The Examiner must, as one of the inquiries pertinent to any obviousness inquiry under 35 U.S.C. §103, recognize and consider not only the similarities but also the critical differences between the claimed invention and the prior art.⁷ Critical differences in the prior art must be recognized (when attempting to combine references).⁸

The U.S. Supreme Court decision of *KSR v. Teleflex* provided a tripartite test to evaluate obviousness.

The rationale to support a conclusion that a claim would have been obvious is that **all the claimed elements were known in the prior art** and one skilled in the art could have combined the elements as claimed by known methods **with no change in their respective functions**, and **the combination would have yielded nothing more than predictable results** to one of ordinary skill in the art.⁹

² *In re Fine*, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988).

³ *KSR International Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 82 U.S.P.Q.2d 1385 (2007)

⁴ *See Princeton Biochemicals, Inc. v. Beckman Coulter, Inc.*, 7, 1336-37 (Fed. Cir. 2005).

⁵ *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1, 17 (1966).

⁶ *See Interconnect Planning Corp. v. Feil*, 774 F.2d 1132, 1143, 227 USPQ 543, 551 (Fed. Cir.1985).

⁷ *In re Bond*, 910 F.2d 831,834, 15 USPQ2d 1566, 1568 (Fed. Cir. 1990), *reh'g denied*, 1990 U.S. App. LEXIS 19971 (Fed. Cir.1990).

⁸ *Id.* at 1568.

⁹ *See KSR*; *see also* MPEP § 2143, *emphasis added*.

“If any of these [three] findings cannot be made, then this rationale [of combining prior art elements according to known methods to yield predictable results] cannot be used to support a conclusion that the claim would have been obvious.”¹⁰

Although other rationales for rejection under 35 U.S.C. §103(a) may exist, the basis for an obviousness rejection is still grounded in a consideration of all claim elements. “All words in a claim must be considered in judging the patentability of that claim against the prior art.”¹¹ Additionally, to render the claimed subject matter obvious, the prior art references must teach or suggest every feature of the claims.¹²

“[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.”¹³

The U.S. Supreme Court has held that USPTO personnel may not dissect a claimed invention into discrete elements and then evaluate the elements in isolation. Instead, the claim as a whole must be considered.¹⁴

¹⁰ MPEP § 2143, emphasis added.

¹¹ *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970). See also MPEP § 2143.03.

¹² See Manual of Patent Examining Procedure §§ 706.02(j), 2143(A) (2008); MPEP § 2142 (2006) (citing *In re Vaeck*, 947 F.2d, 488 (Fed. Cir. 1991). Cited approvingly in *Ex parte WEN WEN* and *PATRICIA NG* at 7; Appeal No. 2009-000776; decided September 25, 2009.

¹³ See *In re Kahn*, 441 F. 3d 977, 988 (CA Fed. 2006) cited with approval in *KSR Int’l v. Teleflex Inc.*, 127 S. Ct. 1727, 1740-41 (2007))

¹⁴ See, e.g., *Diamond v. Diehr*, 450 U.S. 175, 188-89, 209 USPQ 1, 9 (1981).

B) Discussion of the rejections of claims 1-6, 9-14, and 17 under 35 U.S.C. §103(a) as being unpatentable over U.S. Published Patent Application No. 2004/0049790 to Russ et al. (Russ), in view of U.S. Published Patent Application No. 2002/0199190 to Su, further in view of U.S. Published Patent Application No. 2001/0000194 to Sequeira.

On page 2 of the *Advisory Action* dated January 6, 2010, the Examiner maintained the prior rejection of claims 1-6, 9-14, and 17 under 35 U.S.C. § 103(a) as being unpatentable over *Russ*, *Su*, and *Sequeira*. The Examiner further stated in the *Advisory Action* that,

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413,208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091,231 USPQ 375 (Fed. Cir. 1986).¹⁵

However, where the Examiner relied exclusively on a single reference to teach or suggest a particular element of a claim, Appellant can only respond by attacking the exclusive reference. Therefore, as noted below, since the Examiner frequently relied exclusively on a single reference to teach or suggest particular claim elements, nonobviousness can only be shown by attacking the single reference individually. The other references simply have no bearing on these particular claim elements whatsoever. However, as Appellant will show, no combination of the cited references teaches or suggests all of Appellant's claimed elements.

Therefore, since a *prima facie* case of obviousness has not been properly established, Appellant respectfully traverses the rejections made by the Examiner under 35 U.S.C. §103(a). Appellant will show that the cited references, either singly or in combination, neither teach nor suggest all limitations of Appellant's claimed elements, with no change in the respective functions of the cited references; nor is there any substantiating evidence that the combination of the references would have yielded nothing more than predictable results.

¹⁵ *Advisory Action* at 2.

In particular, Appellant's independent claim 1 recites, *inter alia*,

[U]sing said application streamer to create a file directory structure based on a priority for each file in the file directory structure, the priority for each file determined using information ***about each file present in said textual data and said file directory structure comprising at least one data file and at least one graphical data file formatted by the application streamer to be compatible with the set-top box;***

using said application streamer to create a node tree on a broadcast streamer by mirroring said file directory structure such that each file in said file directory structure becomes a node ***with a corresponding priority in said node tree*** on said broadcast streamer;

allocating bandwidth and transmission frequency to each node of said node tree based ***on the corresponding priority*** of each said node; and

using said broadcast streamer to multiplex said nodes of said node tree with a regular broadcast stream resulting ***in an interactive data stream.***¹⁶

Appellant's other independent claim, claim 9, shares with claim 1 limitations similar to at least those shown above.

The Examiner relied exclusively on *Sequeira* to “disclose[] a system for broadcasting carousel data, [that] clearly teaches storing an indication of file priority with the file in the directory structure, the priority determined using information about the file ([0087]).”¹⁷ Although *Sequeira* does discuss that, “data in QueueSlot Field 2013 allows the data carousel to assign different priority levels to different assets,”¹⁸ the Examiner has failed to consider Appellant's entire claimed element. Specifically, Appellant's element recites, *inter alia*, “the priority for each file determined using information ***about each file present in said textual data and said file directory structure comprising at least one data file and at least one graphical data file formatted by the application streamer to be compatible with the set-top box.***”¹⁹

¹⁶ Emphasis added.

¹⁷ *Office Action* at 3.

¹⁸ *Sequeira* at paragraph [0087].

¹⁹ Emphasis added.

Sequeira, at best, discusses assigning different priority levels to different assets, nothing more. *Sequeira* therefore fails to discuss Appellant's entire claimed element in the context of at least one graphical data file formatted by the application streamer to be compatible with the set-top box. Indeed, *Sequeira* is entirely silent on point and the Examiner has failed to show any other reference or combination of references disclosing this element.

Moreover, the Examiner relied exclusively on *Russ* to teach or suggest Appellant's claimed element of "using said application streamer to create a node tree on a broadcast streamer by mirroring said file directory structure such that each file in said file directory structure becomes a node with a corresponding priority in said node tree on said broadcast streamer."²⁰ Specifically, the Examiner stated that, "Each of the files in the file system [is] assigned a position for broadcast, [0031]-[0032]. The BCS server 106 broadcasts higher priority files more frequently, [0033]."²¹ However, in contrast to the Examiner's assertion, *Russ* merely discusses repeatedly broadcasting blocks based on a selection from a remote DHCT. However, the blocks are not broadcast according to any priority.

The remote DHCT 600 selects a file (block 406) from the directory index and communicates its selection to the gateway device 500. *The BCS server 106 and/or the content servers repeatedly broadcast (block 407) the selected file, among other files*, to the gateway device 500. The BCS server 106 may broadcast files using any of a number of possible broadcasting schemes. As a non-limiting example, among others, one scheme may involve broadcasting certain files more frequently than other files.²²

Thus *Russ* simply discusses broadcasting both selected files, among other files, repeatedly. *Russ* is completely silent on broadcasting files based on "*a corresponding priority* in said node tree on said broadcast streamer"²³ as recited in Appellant's claim 1.

The Examiner further relied on *Russ* to disclose Appellant's claimed element of "allocating bandwidth and transmission frequency to each node of said node tree based on the

²⁰ *Office Action* at 3.

²¹ *Ibid.*

²² *Russ* at paragraph [0033].

²³ Emphasis added.

corresponding priority of each said node.” Specifically, in support of this assertion, the Examiner simply stated that, “The BCS server 106 broadcasts certain files more frequently, [0033].”²⁴ However, as noted above, *Russ* merely discusses broadcasting both selected files, among other files, repeatedly. Appellant can find no teaching or suggestion anywhere within *Russ* of ***allocating bandwidth and transmission frequency*** to each node of said node tree ***based on the corresponding priority*** as claimed. *Russ* simply has no discussion whatsoever on allocating bandwidth and transmission frequency, much less performing the allocation based on a corresponding priority.

Additionally, the Examiner further relied on *Russ* to teach or suggest Appellant’s claimed element of “using said broadcast streamer to multiplex said nodes . . . resulting ***in an interactive data stream.***” Other than a mere program guide, which certainly cannot be considered interactive content, Appellant is unable to find any reference within *Russ* to an interactive data stream. Once again, *Russ* is entirely silent on point. Indeed, many of the Examiner’s statements that the cited reference teaches or suggests the Appellant’s claimed elements are merely conclusory with no actual support found in *Russ*. “[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.”²⁵ ***Although the Examiner referred to portions of Russ, there is no rational argument providing a legal nexus between the referenced portions and Appellant’s claims.***

Moreover, Appellant notes with interest that the Examiner used three references in the rejection of independent claims 1 and 9. The number of references is highly suggestive that the Examiner is using Appellant’s structure as a template and selecting individual elements from each reference in a hindsight reconstruction of Appellant’s claimed invention. Further, the use of individual elements from the references suggests that the Examiner is merely considering whether the differences are obvious, not whether the invention as a whole is obvious. The U.S. Supreme Court has held that USPTO personnel may not dissect a claimed invention into discrete elements and then evaluate the elements in isolation. Instead, the claim as a whole must be

²⁴ *Office Action* at 3.

²⁵ See *In re Kahn*, 441 F. 3d 977, 988 (CA Fed. 2006) cited with approval in *KSR Int’l v. Teleflex Inc.*, 127 S. Ct. 1727, 1740-41 (2007))

considered.²⁶ When considered as a whole, Appellant's claimed elements are neither taught nor suggested by any combination of the cited references.

Since Appellant has shown that not all the claimed elements were known as required, either by *Russ* singly or in combination with *Su* or *Sequeira*, Appellant respectfully requests the Board to reconsider and reverse the Examiner's rejection under 35 U.S.C. §103 with regard to independent claims 1 and 9. Since claims 2-6, 10-14, and 17 depend, either directly or indirectly, from claims 1 or 9, they too are allowable for at least the same reasons as the claims from which they depend. Further, each of these dependent claims may be patentable for its own limitations.

²⁶ See, e.g., *Diamond v. Diehr*, 450 U.S. 175, 188-89, 209 USPQ 1, 9 (1981).

C) Discussion of the rejection of claims 7, 8, 15, and 16 under 35 U.S.C. §103(a) as being unpatentable over Russ in view of Su in view of Sequeira, as applied to claim 6 above, and further in view of U.S. Patent No. 6,618,353 to Standridge et al. (Standridge).

On page 2 of the *Advisory Action* dated January 6, 2010, the Examiner maintained the prior rejections of claims 7, 8, 15, and 16 under 35 U.S.C. §103(a) as being unpatentable over *Russ* by itself or in combination with various other cited references as noted immediately above. However, these claims depend from claims 1 or 9 that Appellant has shown to be allowable. The cited reference to *Standridge* fails to supply the elements of the independent claims 1 and 9 that were shown above to be missing from any combination of *Russ*, *Su*, or *Sequeira*. Therefore, claims 7, 8, 15, and 16 are also allowable for at least the same reasons as the claims from which they depend. Further, each of these dependent claims may be patentable for its own limitations.

SUMMARY


For at least the reasons presented above, Appellant maintains that the rejections made under 35 U.S.C. § 103(a) were improper. Appellant therefore respectfully submits that the claims are in condition for allowance, and that the cited art does not render the claims obvious. Appellant therefore requests the Board to reverse the findings of the Examiner with regard to the rejections. Appellant further respectfully requests allowance of the pending claims.

Respectfully submitted,

SCHWEGMAN, LUNDBERG & WOESSNER, P.A.
P.O. Box 2938
Minneapolis, MN 55402
(408) 660-2015

Date 23 April 2010

By


Bradley W. Scheer
Reg. No. 47,059

CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being filed using the USPTO's electronic filing system EFS-Web, and is addressed to: Mail Stop Appeal Brief – Patents, Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on this 23 day of April, 2010.

John D. Gustav-Wrathall
Name


Signature

8. CLAIMS APPENDIX

1. A method for sending interactive textual and graphical data from a content provider to a set-top box through a broadcast system, said method comprising:
receiving said textual data and said graphical data from said content provider in a server that is located in an uplink center;
retrieving said textual and said graphical data from said server into an application streamer coupled to said server;
converting said textual data and said graphical data into interactive data in said application streamer, the interactive data compatible with the set-top box;
using said application streamer to create a file directory structure based on a priority for each file in the file directory structure, the priority for each file determined using information about each file present in said textual data and said file directory structure comprising at least one data file and at least one graphical data file formatted by the application streamer to be compatible with the set-top box;
using said application streamer to create a node tree on a broadcast streamer by mirroring said file directory structure such that each file in said file directory structure becomes a node with a corresponding priority in said node tree on said broadcast streamer;
allocating bandwidth and transmission frequency to each node of said node tree based on the corresponding priority of each said node; and
using said broadcast streamer to multiplex said nodes of said node tree with a regular broadcast stream resulting in an interactive data stream.
2. The method as set forth in claim 1, said method further comprising:
using set-top box application software to read said interactive data stream and display said interactive data stream on a user's display device; and
monitoring said application streamer with a computer.

3. The method as set forth in claim 1 wherein said step of retrieving said textual data and said graphical data from said server further comprises querying said server for new data.
4. The method as set forth in claim 1 wherein said step of converting said textual data and said graphical data into said interactive data compatible with the set-top box further comprises creating system alerts.
5. The method as set forth in claim 4 wherein said step of creating system alerts comprises creating alerts upon detection of errors within said broadcast system using SNMP traps, event logging, and visual queues in a graphical user interface.
6. The method as set forth in claim 2 wherein said step of monitoring said application streamer by a computer further comprises monitoring said application streamer, configuring said application streamer, making any necessary changes to said application streamer.
7. The method as set forth in claim 6 wherein said step of monitoring said application streamer further comprises monitoring said application streamer using a DCOM user interface over a network connection.
8. The method as set forth in claim 7 wherein said step of monitoring said application streamer further comprises monitoring the connection to said broadcast streamer, monitoring the connection to said server, and monitoring the status of said interactive data stream on said broadcast streamer.

-
9. A system for sending interactive textual and graphical data from a content provider to a set-top box through a broadcast system, said system comprising:
- a server, located in an uplink center, that receives said textual data and said graphical data from said content provider;
 - an application streamer, that is coupled to said server, that retrieves said textual data and said graphical data from said server, and that converts said textual data and said graphical data into interactive data compatible with the set-top box;
 - a file directory structure that is created by said application streamer based on a priority for each file in the file directory structure, the priority for each file determined using information about each file present in said textual data and said file directory structure comprising at least one data file and at least one graphical data file formatted by the application streamer to be compatible with the set-top box;
 - a node tree that is created by said application streamer on a broadcast streamer by mirroring said file directory structure such that each file in said file directory structure becomes a node with a corresponding priority in said node tree on said broadcast streamer;
 - bandwidth allocation software that calculates a bandwidth allocation for each node of said node tree based on the corresponding priority of each said node; and
 - a multiplexer located on said broadcast streamer that multiplexes said nodes of said node tree with a regular broadcast stream resulting in an interactive data stream.
10. The system as set forth in claim 9, said system further comprising:
- a set-top box that receives said interactive data stream;
 - a software application located on said set-top box that reads said interactive data stream and displays said interactive data stream on a display device; and
 - a computer that monitors said application streamer.
11. The system as set forth in claim 9 wherein said application streamer queries said server for new data.
12. The system as set forth in claim 9 wherein said application streamer creates system alerts.

13. The system as set forth in claim 12 wherein said system alerts comprise one of SNMP traps, event logging, and visual queues in a graphical user interface.
14. The system as set forth in claim 10 wherein said computer that monitors said application streamer allows for monitoring said application streamer, configuring said application streamer, and making any necessary changes to said application streamer.
15. The system as set forth in claim 10 wherein said computer that monitors said application streamer monitors said application streamer using a DCOM user interface over a network connection.
16. The system as set forth in claim 15 wherein said computer that monitors said application streamer further monitors said broadcast streamer, the connection to said server, and the status of said interactive data stream on said broadcast stream.
17. The method as set forth in claim 1, said method further comprising sending said interactive data stream to said set-top box.

9. EVIDENCE APPENDIX

None.

10. RELATED PROCEEDINGS APPENDIX

None.